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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,605	05/29/2001	Stephen E. Richardson	10013854-1	4135

7590 08/26/2004

HEWLETT-PACKARD COMPANY
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EXAMINER

MOAZZAMI, NASSER G

ART UNIT PAPER NUMBER

2187

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,605

Applicant(s)

RICHARDSON ET AL.

Examiner

Nasser G Moazzami

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's amendment dated 07/16/2004 in response to PTO Office Action dated 11/28/2003. The applicant's remarks and amendment were considered with the results that follows.
2. Claims 1-20 have been presented in this application for examination. No claims has been canceled or added. Therefore, claims 1-20 remain pending in the application.

Response to Arguments

3. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant admitted Prior Art, hereinafter AAPA in view of George et al., hereinafter George (U.S. Patent No. 6,772,241) and further in view of Elabd (U.S. Patent No. 6,526,462).

As per claims 1-6, AAPA teaches a multiprocessing system comprising: multiple processors [**processors 10, 20, 30 and 40 (see Fig. 1)**]; and an operating system residing in a memory connected to said multiple processors [**memory 95 and operating system 90 (see Fig. 1)**].

AAPA discloses the claimed invention, but fails to specifically teach the computer system have multiple operating system resided in the memory, wherein each of said multiple processors execute an operating system of said multiple operating systems

George teaches a computer system having multiple processors running independent operating systems, wherein each processor is configured to operate with an independent operating system [**Microsoft Windows, real time operating system or other operating systems (column 3, lines 17-24)**]. George further discloses that the processors are operable to execute two or more of said multiple operating systems simultaneously [**Full ON mode**] since a single operating system may limit the flexibility of the computer system [**column 1, lines 27-28; column 2, lines 55-57; column 3, lines 11-15 and column 3, lines 27-29**].

Accordingly, it would have been obvious to one having ordinary skill in the art to include an operating system for each processor as being taught by George's computer system into the combination of the AAPA's computer system in order to enhance the computer system's felexibility.

Combination of the AAPA and George teaches the claimed invention, but fails to specifically teach that the multiple processors are embedded in a single die.

As for multiple processors embedded in the same chip and multiple processors are connected to said memory via a bus to execute said multiple operating systems (it is noted that according to In re Larson 144 USPQ 347, CCPA 1965, to make integral is not generally given patentable weight; in fact this decision was later upheld for the integration of electrical components In re Tomoyuki Kohno 157 USPQ 275, CCPA 1968; thus, for purposes of rejection, integration on the same chip is not seen to alter the scope of the present claim), furthermore as it is evident by Elabd (U.S. Patent No. 6,526,462) an entire system (processors, memory, etc) can be implemented or embedded on a single chip to produce a product that is smaller, faster, and more efficient than the separate IC product [column 1, lines 22-34].

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the current invention was made to integrate the plurality of processors onto a single chip as being taught by Elabd. Since by doing so, it would decrease the distance between elements that allowing for faster access, decreasing the size of the overall system space and power requirements, therefore being advantageous.

As per claims 7-20, claims 7-20 encompass the same scope of the invention as those of claims 1-6 in addition of some units and means for performing the above said functions as being stated above with respect to claims 1-6. Therefore, claims 7-20 are rejected for the same reasons as stated above with respect to claims 1-6.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,108,731 (Suzuki et al.)

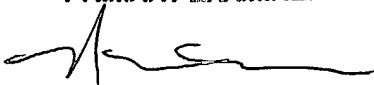
U.S. Patent No. 5,513,346 (Satagopan et al.)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nasser G Moazzami whose telephone number is (703) 305-0017. The examiner can normally be reached on 7:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NASSER MOAZZAMI
PRIMARY EXAMINER



08/23/2004

Best Available Copy